Amendments to the Claims:

This listing of claims will replace all prior versions and listings of claims in the application.

Listing of Claims:

1. (Currently Amended) A core orientation device for a core drill, the core orientation device comprising:

an arrangement for providing signals associated with a ~~physical~~ rotational orientation of the core orientation device;

means for maintaining a rotational orientation of a core drilled by the core drill stationary with respect to the rotational orientation of the core orientation device;

processing means for processing the signals provided by the arrangement so as to provide processed data from which a measure of the physical orientation of the core orientation device can be established, the measure being associated with the ~~physical~~ rotational orientation of the core orientation device at a particular moment in time;

memory for storing the processed data;

interface means having first means for storing the processed data in the memory and second means for accessing the memory to provide the measure of the ~~physical~~ rotational orientation of core orientation device when required; and

means for relating the measure of the rotational orientation of the core orientation device with the present rotational orientation thereof such that the core orientation device can be rotated ~~to~~ so that the core reflects the measure of the rotational orientation of the core orientation device.

2.-3. (Cancelled)

4. (Previously Presented) A core orientation device as claimed in claim 1, wherein the arrangement for providing signals comprises triaxial accelerometer means.

5. (Cancelled)

6. (Currently Amended) A core orientation device as claimed in claim 1, wherein the core orientation device includes input means for inputting the particular moment in time into the processing means and display means for subsequently displaying the measure of the ~~physical~~ rotational orientation of the core orientation device, the measure being associated with the inputted moment in time.

7. (Original) A core orientation device as claimed in claim 6 wherein the core orientation device is cylindrical and one end of the core orientation device includes the display and input means in the form of a LCD display and keypad.

8. (Previously Presented) A core orientation device as claimed in claim 1, wherein the core orientation device has a body in the form of a housing having at least one threaded end for being engaged by an inner tube assembly of the core drill.

9. (Original) A core orientation device as claimed in claim 8 wherein, when engaged by the inner tub assembly, the core orientation device forms a length of the inner tube assembly.

10. (Previously Presented) A core orientation device as claimed in claim 1, wherein the processing means includes a timer configured for ensuring that the processing means processes signals from the arrangement over predetermined time intervals.

11. (Previously Presented) A core orientation device as claimed in claim 1, wherein the processor means includes integration means for integrating signals from the arrangement over a predetermined time interval.

12. (Previously Presented) A core orientation device as claimed in claim 1, wherein the processor means includes timer means for determining predetermined intervals relative to a reference time, and means for storing the processed data in the memory upon each of the predetermined intervals terminating.

13. (Currently Amended) A core drill having a core orientation device comprising: an arrangement for providing signals associated with a rotational orientation of the core orientation device;

processing means for processing the signals provided by the arrangement so as to provide processed data from which a measure of the rotational orientation of the core orientation device can be established, the measure being associated with the rotational orientation of the core orientation device at a particular moment in time;

memory for storing the processed data; and interface means having first means for storing the processed data in the memory and second means for accessing the memory to provide the measure of the rotational orientation of core orientation device when required;

wherein the core drill comprises:

means for maintaining ~~knowledge of the relative~~ a rotational orientation of a core drilled by the core drill ~~and the core orientation device such that a measure of~~ stationary with respect to the rotational orientation of the core orientation device; and

~~can be established using the measure of the rotational orientation of the core orientation device; and~~ means for relating the measure of the rotational orientation of the core orientation device with the present rotational orientation thereof such that the core orientation device can be rotated [[to]] so that the core reflects the measure of the rotational orientation of the core orientation device.

14. (Currently Amended) A core drill as claimed in claim 13 wherein the means for maintaining ~~knowledge of the relative~~ a rotational orientation of the core ~~drilled by the core drill~~ stationary with respect to the rotational orientation of the core orientation device comprises a mechanism for preventing rotational movement about the length of the core ~~sample~~ drilled by the core drill, relative to the core orientation device.

15. (Cancelled)

16. (Previously Presented) A core drill as claimed in claim 13, wherein the core drill includes an outer tube assembly and an inner tube assembly with the inner tube assembly having a means for accommodating the core orientation device along the length of the inner tube assembly.

17. (Currently Amended) A core drill as claimed in claim 16 wherein the inner tube assembly includes a bearing allowing the means for accommodating the core orientation device to rotate

relative to the outer tuber assembly but not relative to the core ~~sample~~ when the core is received by the inner tube assembly.

18. (Previously Presented) A core drill as claimed in claim 16 wherein the core orientation device is cylindrical and one end of the core orientation device includes display and input means in the form of a LCD display and keypad, the end of the core orientation device being protected by the inner tube assembly when accommodated.

19. (Previously Presented) A core drill as claimed in claim 16, wherein the outer tube assembly includes a spacer for allowing the inner tube assembly to be fitted with the outer tube assembly when the core orientation device is accommodated.

20. (Currently Amended) A method of obtaining and orientating a core sample comprising:

moving a core drill having a core orientation device from a first location to a drilling location and thereafter operating the core drill to drill a core ~~sample~~;

maintaining a physical orientation of the core stationary with respect to a physical orientation of the core orientation device;

generating signals associated with [[a]] the physical orientation of the core orientation device between the first location and the drilling location;

processing the signals to provide processed data from which a measure of the physical orientation of the core orientation device at the drilling location can be established;

[[and]] storing the processed data in memory such that the measure of the physical orientation of the core orientation device can be obtained therefrom; and

displaying a related measure of the physical orientation of the device and varying that related measure upon rotation of the core ~~sample and~~ orientation device such that a user can position the core ~~sample and device~~ in the measured physical orientation for marking.

21. (Currently Amended) A method as claimed in claim 20 wherein the method includes maintaining knowledge of the relative physical orientation of the core orientation device and of the core ~~sample~~ after the core ~~sample~~ has been drilled such that a measure of the physical orientation of the core ~~sample~~ taken by the core drill can be provided using the measure of the

physical orientation of the core orientation device when at a location spaced from the drilling location.

22. (Currently Amended) A method as claimed in claim [[20]] 18 wherein the method includes initialising the physical orientation of the core orientation device at the first location, said initialising being performed by commencing said generating and processing the signals at the first location with the core orientation device in a known physical orientation.

23. (Cancelled)

24. (Currently Amended) An orientation device for providing an indication of [[the]] a rotational orientation of a core ~~sample~~ relative to a body of material from which the core has been extracted, the orientation device comprising:

means for maintaining the rotational orientation of the core stationary with respect to a rotational orientation of the orientation device;

means for determining and storing the rotational orientation of the orientation device at predetermined time intervals relative to a reference time[[,]];

means for inputting a selected time interval[[,]];

means for relating the selected time interval to one of the predetermined time intervals and providing an indication of the rotational orientation of the core orientation device at the selected time interval; and

means for comparing the rotational orientation of the orientation device at the selected time interval to the rotational orientation of the orientation device at any subsequent time and providing an indication of the direction in which the orientation device should be rotated in order to bring the core into a rotational orientation corresponding to the rotational orientation of the core at the selected time.

25. (Currently Amended) An orientation device as claimed in claim 24 attached to an inner tube assembly of a core drill and fixed against rotation relative thereto, the physical orientation device including means for attachment to the inner tube assembly.

26. (Cancelled)

27. (Currently Amended) An orientation device for providing an indication of the rotational orientation of a core ~~sample~~ relative to a body of material from which the core ~~sample~~ has been extracted, the orientation device comprising:

means for maintaining the rotational orientation of the core stationary with respect to a rotational orientation of the orientation device;

means for generating signals responsive to the rotational orientation of the orientation device[[,]];

a processor for receiving the generated signals and for processing the signals to generate orientation data representative of the rotational orientation of the orientation device[[,]];

means for storing the orientation data at predetermined time intervals[[,]]; and

means for inputting a signal representative of a selected time interval to the processor, the processor operating to relate the selected time interval to the predetermined time intervals and output a signal indicative of the rotational orientation of the core device at the selected time interval;

wherein, the orientation data is generated representative of the rotational orientation of the orientation device at any subsequent time and the processor is operable to output a signal to a display means to provide a visual indication of the direction in which the orientation device should be rotated at said subsequent time in order to bring the core into a rotational orientation corresponding to its rotational orientation at the selected time.

28. (Canceled).

29. (Original) A core drill comprising an inner tube assembly and an orientation device according to claim 24.

30. (Original) A core drill comprising an inner tube assembly and an orientation device according to the claim 27.

31. (Currently Amended) A method of providing an indication of [[the]] a rotational orientation of a core ~~sample~~ relative to a body of material from which the core ~~sample~~ has been extracted, the method comprising:

drilling a core ~~sample~~ from a body of material with a core drill having an inner tube assembly adapted to receive the core;

maintaining the rotational orientation of the core stationary with respect to a rotational orientation of the inner tube assembly;

recording the rotational orientation of the inner tube assembly at predetermined time intervals with reference to an initial reference time during said drilling;

recording the specific time interval beyond the reference time at which the core sample was separated from the body of material;

removing the inner tube assembly and core ~~sample~~ contained therein from the body of material; and

relating the recorded specific time to the recorded time intervals to obtain an indication of the rotational orientation of the inner tube assembly and consequently the core contained therein at the specific time interval.

32. (Cancelled)

33. (Cancelled)

34. (New) A method according to claim 31 further comprising the steps of rotating the inner tube assembly so that the rotational orientation of the core reflects the rotational orientation of the core at the time interval when the core was separated from the body of material.